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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/721,883 | 11/26/2003 | Huirong Yao | 2003US311 | 5998 |

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10/24/2005

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EXAMINER

SCHILLING, RICHARD L

ART UNIT

PAPER NUMBER

1752

DATE MAILED: 10/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|---|-----------------------------------|--|
| Office Action Summary | Application No. 10/721,883 | Applicant(s) YAO ET AL. | |
| | Examiner Richard L. Schilling | Art Unit 1752 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7,8,10,13-23,25-29 and 31-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,7,8,10,13-23,25-29 and 31-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>10-6-05</u> . | 6) <input type="checkbox"/> Other: _____ |

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1. Claims 16, 27 and 33-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 13 and 27 recite direct bonds excluded from their parent claims 13 and 19. Claims 33-38 make compounds of claim 13 which do not contain direct bonds for R24 and R26 found in the reactant of claim 33.

2. Claims 19-23, 25-27, 29, 31-36 and 38 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Baumann et al. for the reasons set forth in paragraph 1 of the second office action filed 8-2-05. In regard to claims 33-36 and 38, which were overlooked in the second office action, Baumann et al (col. 10, line 30- col. 11, line 45) reacts maleimide, including phthalimide, with acrylic acid glycidyl esters. Baumann et al is not limited to direct bonds for R24 plus R26 of the instant claims as argued by applicants but also includes polymers corresponding to those of instant claim 19 wherein R24 plus R26 form a carbocyclic ring, i.e. phthalimide groups.

3. Claims 19-23, 25,27,29,31 and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Simms et al. Simms et al (col. 3, lines 43-51 ; col.7, line 54- col.8, line55 ; col. 9, lines 40-56; ex.7-11,13) discloses polymers within the scope of formula I of instant claim 19 where R24 plus R26 form a carbocyclic ring.

4. Claims 1-5,7,8,10,13-23, 25-29 and 31-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simms et al. in view of Baumann et al. Simms et al. discloses reacting cyclic imide compounds, such as succinimides, phthalimides and maleimides, with glycidyl acrylates to make polymers within the scope of those of

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instant claim 19. In regard to claims 1, 28 and 37, it would be obvious to one skilled in the art to use cyclic imides in Simms et al. other than the specific three examples, such as 6 membered rings, since Simms et al. is not limited to the specific cyclic imides given as examples. Since Baumann et al. (Col. 11, lines 45-50) discloses vinyl monomers with cyclic imide groups for making polymers like those in Simms et al. by polymerization as an alternative to reacting the imides with performed glycidyl acrylate polymers and Simms et al. (col.3, lines 42-51) discloses making the monomers first as a nonpreferred method of making their polymers, it would at least be obvious to one skilled in the art to make the vinyl monomers with cyclic imides first and then polymerize to make the polymers in Simms et al.

Any inquiry concerning this communication should be directed to Richard L. Schilling at telephone number 571-272-1335.

RICHARD L. SCHILLING
PRIMARY EXAMINER
GROUP 1100-1752

